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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,526	12/05/2003	Stephen J. Kramer	2269-4371.1US (00-0118.01)	8284
24247	7590	07/01/2005	EXAMINER	
TRASK BRITT P.O. BOX 2550 SALT LAKE CITY, UT 84110			MCDONALD, SHANTESE L	
			ART UNIT	PAPER NUMBER
			3723	

DATE MAILED: 07/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/728,526

Applicant(s)

KRAMER, STEPHEN J.

Examiner

Shantese L. McDonald

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on 21 March 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-23 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) 1-12 and 14-23 is/are rejected.
- 7) ☐ Claim(s) 13 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- ☐ Notice of References Cited (PTO-892)
- ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_.
- ☐ Notice of Informal Patent Application (PTO-152)
- ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klun in view of Zimmer et al.

Klun et al. teaches a method for fabricating an apparatus for conditioning a polishing pad comprising, providing a quantity of an abrasive material, (col. 18, lines 51-55), which are abrasive particles having a dimension of about 25 to 500  $\mu\text{m}$ , (col. 18, lines 64-67), that is degradable or dissolvable by at least one chemical that does not substantially degrade or dissolve a material of a polishing pad to be conditioned, and forming a conditioning surface, by providing a substrate that comprises at least one of a polymer, a metal, a ceramic, paper, a paper-like material or a fabric, (col. 17, lines 54-59). Klun et al. also teaches at least partially impregnating the supporting substrate with the abrasive particles, by disposing at least some of the abrasive particles adjacent the conditioning surface, completely embedding at least some of the abrasive particles within the supporting substrate, and the conditioning surface comprising a pattern of abrasive material, (col. 17, line 1- col. 18, line 67). Klun teaches all the limitations of the claims except for the abrasive elements being configured to condition a polishing pad for use in a semiconductor device. Zimmer et al. teaches abrasive elements being

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configured to condition a polishing pad for use in a semiconductor device, (col. 3, line 61 – col. 4, line 6). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to utilize the abrasive element of Klun, to condition a polishing pad, as taught by Zimmer, in order to more effectively condition the polishing pad.

Claims 14-23 are rejected under 35 U.S.C. 103(a) as being unpatentable over Klun as modified by Zimmer et al., in further view of Bange et al.

Klun et al. as modified by Zimmer et al.

teaches all the limitations of the claims except for the abrasive material comprises providing a quantity of at least one of silicon dioxide, iron, an iron alloy, copper, nickel, and tungsten, securing linear filaments in substantially parallel relation to one another, comprising an abrasive material, in a ductile material to the supporting substrate, and forming a brush. Bange et al. teaches providing an abrasive material that comprises a quantity of and iron alloy, (col. 18, line 1), securing linear filaments in substantially parallel relation to one another, comprising an abrasive material, in a ductile material to the supporting substrate, and forming a brush, (col. 18, line 27 – col. 19, line 55). It would have been obvious to one having ordinary skill in the art at the time the invention was made, to provide method of Klun et al. as modified by Zimmer et al., with abrasive filaments, as taught by Bange et al, in order to provide various forms of conditioning elements.

***Allowable Subject Matter***

Claim 13 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

***Response to Arguments***

Applicant's arguments filed 3/21/05 have been fully considered but they are not persuasive.

The Klun reference teaches the method of making an abrasive article. The Zimmer reference teaches an abrasive polishing pad conditioner. The Applicant argues that one of ordinary skill in the art would not have been motivated to combine the teachings of Klun and Zimmer. The Applicant goes on to define how the abrasive particles of Klun are distributed throughout a polymer, whereas the teachings of Zimmer are strictly limited to conditioning apparatuses that include abrasive particles in highly uniform monolayers. The Zimmer reference was cited to show that one can use an abrasive article as a polishing pad conditioner. One of ordinary skill in the art would know that the abrasive article made by the method of Klun could indeed be used to condition a polishing pad, and since Zimmer teaches an abrasive polishing pad conditioner, there is indeed motivation to combine the references.

***Conclusion***

**THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shantese L. McDonald whose telephone number is (571) 272-4486. The examiner can normally be reached on 8:00 a.m. - 4:30 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Joseph Hail can be reached on (571) 272-4485. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

S.L.M.  
June 27, 2005



Joseph J. Hail, III  
Supervisory Patent Examiner  
Technology Center 3700